



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/992,803	11/19/2001	Nicolas Pierre Georges Certain	2-1032-178	7350

803 7590 02/27/2003

HENDERSON & STURM LLP
1213 MIDLAND BUILDING
206 SIXTH AVENUE
DES MOINES, IA 50309-4076

EXAMINER

KING, BRADLEY T

ART UNIT PAPER NUMBER

3683

DATE MAILED: 02/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

SK

Office Action Summary

Application No.

09/992,803

Applicant(s)

CERTAIN, NICOLAS PIERRE
GEORGES

Examiner

Bradley T King

Art Unit

3683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- ☐ Interview Summary (PTO-413) Paper No(s). ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

The disclosure is objected to because of the following informalities: the specification does not include the appropriate section headings.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 16 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 16 requires a method of "very-high-pressure moulding". It is unclear from the specification or claims what constitutes "very-high-pressure moulding" and the specification appears to indicate that precompression is accomplished by this moulding. It is unclear how the elastomer is maintained

precompressed by this process, and the process is not described in a manner which enables one skilled in the art to make the invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites "fitted one inside the other substantially coaxially with the interposition of a rigid and a substantially coaxial ring between two contiguous viscoelastic sleeves". This limitation is generally awkward and confusing. Also, it is unclear if the "two contiguous viscoelastic sleeves" are the same as the previously recited "two tubular cylindrical sleeves of viscoelastic material".

Claim 1 recites "cylindrical lateral face". It is unclear which face of a cylinder corresponds to the "lateral face".

Claim 1 recites "an external cylindrical lateral face facing it". It is unclear which element corresponds to "it".

Claim 1 recites "a coaxial ring" and later recites "an intermediate rigid ring". It is unclear if these are the same elements.

Claim 1 recites "an innermost ring" and "an outermost ring". It is unclear if these elements are the same as the previously recited "internal rigid ring" and "external rigid ring" or new elements.

Art Unit: 3683

Claim 10 recites "wherein said set of at least two viscoelastic sleeves is shrink-fitted, into said external armature, arranged as an outer sheath, and/or around said internal armature, of cylindrical shape". It is unclear which elements this list of limitations are directed towards.

Claim 12 recites "the outermost ring of said set is shrunk-on by cold rolling of its part extending in line with the outermost sleeve". It is unclear what is meant by "its part".

Claim 16 recites the relative term "very-high-pressure" which renders the claim indefinite. The term "very-high-pressure" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is unclear what degree of pressure is required to constitute "very-high-pressure".

Claim 16 recites alternative steps of, moulding the inner sleeve directly to the inner armature, and moulding the outer sleeve directly to the armature. Parent claim 1 positively recites both an innermost ring and an outer most ring, both of which preclude the direct attachment of the sleeves to the armature.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Byrnes et al (US#5449152).

Byrnes et al discloses all the limitations of the instant claims including; two tubular cylindrical sleeves of viscoelastic material (figure 5) fitted one inside the other and substantially coaxial, with the interposition of a rigid cylindrical and substantially coaxial ring between two contiguous sleeves of the set, so that, for each pair of two contiguous sleeves, one of the two sleeves is an internal sleeve secured, by an internal lateral face belonging to an internal rigid ring and, by an external cylindrical lateral face of the internal sleeve to an internal cylindrical lateral face belonging to an intermediate rigid ring separating the internal sleeve from the other sleeve of the pair of sleeves, which is an external sleeve secured, by an internal cylindrical lateral face, to an external lateral face of the intermediate ring and, by an external cylindrical lateral face of an external rigid ring, an innermost ring and an outermost ring of the set being secured to an internal armature 3 and an external armature 6 respectively (also note Byrnes et al teach multiple shims). Regarding the recited equation, from the instant specification it appears that the equation merely requires that the stiffness of both layers be substantially equal. Byrnes et al is directed towards this same goal and further recognizes the equation for stiffness (column 3). Therefore, Byrnes et al disclose a damper which substantially follows the required relation.

Claim Rejections - 35 USC § 103

Art Unit: 3683

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Byrnes et al (US#5449152).

Byrnes et al disclose all the limitations of the instant claims with exception to the particular type of elastomer and loss angle. Material selection is well known and routine in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to select a material with the appropriate characteristics to maximize damping and achieve the required load capacities.

Claims 5-10, 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Byrnes et al (US#5449152) in view of De Antonio et al (US#5205029).

Byrnes et al disclose all the limitations of the instant claims with exception to the elastomer being preloaded. Preloading elastomeric bearings is well known in the art and further taught by De Antonio et al for elastomers in the same environment. It would have been obvious to one of ordinary skill in the art at the time the invention was made to preload the elastomeric layers of Byrnes et al as taught by De Antonio et al to increase the service life of the device.

Regarding claims 7-9, the method of preloading the layers are equivalent methods which result in substantially the same final product.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Byrnes et al (US#5449152) in view of McGuire (US#6092755).

Byrnes et al disclose all the limitations of the instant claim with exception to a radially thicker part on the outer ring to which the armature is connected. McGuire teaches an outer ring with a thicker part 29 allowing attachment to an armature 70. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the mounting structure taught by McGuire in the device of Byrnes et al to allow quick disassembly of the device and access to the internal surfaces of the damper.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Byrnes et al (US#5449152) and McGuire (US#6092755), as applied to claim 11 above, in further view of De Antonio et al (US#5205029).

Byrnes et al and McGuire, as applied to claim 11 above, disclose all the limitations of the instant claims with exception to the elastomer being preloaded. Preloading elastomeric bearings is well known in the art and further taught by De Antonio et al for elastomers in the same environment. It would have been obvious to one of ordinary skill in the art at the time the invention was made to preload the

elastomeric layers of Byrnes et al and McGuire as taught by De Antonio et al to increase the service life of the device.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Byrnes et al (US#5449152) in view of Olsen (US#6328293).

Byrnes et al disclose all the limitations of the instant claims with exception to the details of the end connections of the device. Olsen teaches a similar linkage system with threaded clevises having locking nuts 23c and opposite hand threads such that the linkage can be adjusted in place. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize connecting structure such as taught by Olsen in the damper of Byrnes et al to simplify installation and maintenance.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Byrnes et al (US#5449152) in view of Bourgeot (US#5271678).

Byrnes discloses the structure limitations of the instant claim, but lacks the explicit disclosure of pressure molding the elastomer. Pressure molding of elastomers is well known in the art as evidenced by Bourgeot (column 6, lines 60-65). It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize pressure molding of the elastomers of Byrnes et al as taught by Bourgeot as an obvious means of assembly of the device, thereby allowing proper adhesion of the layers.

Art Unit: 3683


Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Certain, Simon et al, Guimbal, Collins et al, and Jorn. All show elastomeric devices.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bradley T King whose telephone number is (703) 308-8346. The examiner can normally be reached on 11:00-7:30 M-F.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

BTK
February 24, 2003


JACK LAVINDER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600

2/24/03